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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,534	10/28/2003	Hiroyuki Tomita	4041J-000790	7258

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EXAMINER

MCCRAW, BARRY CLAYTON

ART UNIT PAPER NUMBER

3744

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,534

Applicant(s)

TOMITA, HIROYUKI

Examiner

B. Clayton McCraw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 7, 14, 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/17/2004, 10/28/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogha et al. (US 6,488,213). Ogha et al. explicitly teach an air conditioning unit for conditioning a passenger compartment of a vehicle (col. 2, lines 19-20), including an operation portion (col. 7, lines 1-13), an environmental-condition detecting device (col. 8, lines 28-44), a control characteristic memory means for storing a control characteristic showing a relationship between the environmental condition and the control value (col. 2, lines 24-39), a microprocessor (31; corresponding to the claimed control unit), and a surface temperature detecting means (col. 36, lines 1-3); the control unit controlling the operation portion (col. 7, lines 55-65), using surface temperature detected by surface temperature detecting means in each passenger compartment (col. 35, line 67 – col. 36, lines 1-3); an air temperature adjusting device (col. 7, lines 30-36);

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area temperature detecting device constructed with a plurality of temperature detecting elements (col. 8, lines 28-44); a means for detecting sunlight amount (col. 8, lines 34-37; corresponding to the claimed solar radiation amount detecting means); a control characteristic memory means and control unit applied to air temperature obtaining a thermal radiation load based on sunlight amount and surface temperature (col. 10, lines 5-27); and a blower for blowing conditioned air into the passenger compartment (13).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogha et al. (US 6,488,213) in view of Hiroshi et al. (JP 2002283830). Ogha et al. teaches all of the elements of the present invention, except for a manual setting device for manually setting the control value and a control characteristic changing means.

Hiroshi et al. explicitly teach a manual setting device for manually setting the control value and a control characteristic changing means (abstract solution, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the air conditioning controls as taught by Ogha et al. with the manual setting device as taught by Hiroshi et al. since it would be advantageous to provide an air conditioning control system that learns and adapts to manual settings.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogha et al. (US 6,488,213) in view Hiroshi et al. (JP 2002283830) in further view of Kamiya et al. (US 6,202,934). Ogha et al. and Hiroshi et al. explicitly teach an air conditioning controller with a manual setting device and a control characteristic means, but do not teach calculating solar radiation thermal load. Kamiya et al. explicitly teach calculating solar radiation thermal load (col. 6, lines 5-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the air conditioning controller and manual setting device and control characteristic means as taught by Ogha et al. and Hiroshi et al. with the calculation of solar radiation thermal load as taught by Kamiya et al. as thermal load and solar radiation are similar quantitative values.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogha et al. (US 6,488,213) in view of Kamiya et al. (US 2001/0039806). Ogha et al. teach all the elements of the present invention except for the surface temperature detecting means being an infrared rays sensor. Kamiya et al. explicitly teach a surface temperature detecting means being an infrared rays sensor (paragraph 0075, lines 5-8). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to combine the air conditioning controls as taught by Ogha et al. with the infrared rays temperature sensor as taught by Kamiya et al. as an infrared ray sensor is one of many common sensors that can be used to sense temperature.

9. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogha et al. (US 6,488,213) in view of Tsunoda (US 2003/0226658). Ogha et al. explicitly teach a temperature adjusting unit for adjusting a temperature of conditioned air (col. 7, lines 30-36), an area temperature detecting device for detecting temperatures in a plurality of detection areas (col. 8, lines 28-44), a target temperature calculating means (col. 8, lines 58-64), a control means for controlling temperature and flow amount (col. 7, lines 55-65), wherein the control means determines an air outlet mode in accordance with the calculated target air temperature (col. 9, lines 8-13). Ogha et al. does not teach an area in which the temperature is changed in accordance with a solar radiation direction. Tsunoda explicitly teaches an area in which the temperature is changed in accordance with a solar radiation direction (paragraph 0059). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the air conditioning controls as taught by Ogha et al. with the solar radiation direction detection as taught by Tsunoda since measuring magnitude and direction of solar radiation are essentially similar.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogha et al. (US 6,488,213) in view of Tsunoda (US 2003/0226658) in further view of Kawai et al. (US 6,397,615). Ogha et al. and Tsunoda teach all the elements of the present

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invention as stated above, but do not teach temperature detection around a windshield. Kawai et al. explicitly teach temperature detection around a windshield (col. 2, lines 25-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the air conditioning control taught by Ogha et al. and Tsunoda with the windshield detection as taught by Kawai et al. as a windshield is one of many advantageous places to monitor temperature in a vehicle.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogha et al. (US 6,488,213) in view of Tsunoda (US 2003/0226658) in further view of Hiroshi et al. (JP 2002283830). Ogha et al. and Tsunoda teach all the aspects of the present invention as stated above, except for a temperature setting switch for manually setting a temperature and a learning means when the setting switch is manually operated. Hiroshi et al. (JP 2002283830) explicitly teach a temperature setting switch for manually setting a temperature and a learning means when the setting switch is manually operated (abstract solution, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the air conditioning controls as taught by Ogha et al. and Tsunoda with the manual setting device as taught by Hiroshi et al. since it would be advantageous to provide an air conditioning control system that learns and adapts to manual settings.

Allowable Subject Matter

12. Claims 7, 14 and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Masauji (US 5,582,021) teaches an air conditioning control method for a vehicle; Ozaki et al. (US 5,752,391) teaches a refrigeration system; Liu et al. (US 6,796,137) teach an air conditioning system; and Aoki et al. (US 2002/0125332) teach a solar radiation detection unit.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Clayton McCraw whose telephone number is (571) 272-3665. The examiner can normally be reached on M-F 8:30AM-5:00PM.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BCM
12/01/2005



MELBA N. BUMGARNER
PRIMARY EXAMINER